

STORMWATER PROGRAM

The Stormwater Program is administered by the Public Works Department. Staff is responsible for the planning, design, and construction of stormwater projects that will improve the environment, reduce runoff volumes, mitigate flooding, and meet state and federal regularly compliance requirements.

Many projects in the Stormwater Program work to meet the Environmental Protection Agency's (EPA) Total Maximum Daily Load (TMDL) for the Chesapeake Bay. TMDL is the calculation of the maximum amount of pollution a body of water can receive and still meet state water quality standards designed to ensure waterways meet a national primary goal of being swimmable and fishable. Monitoring data shows that the Chesapeake Bay has poor water quality, degraded habitats, and low populations of many species of fish and shellfish.

According to an EPA factsheet, the goal of TMDL for the bay is to restore clean water in the Chesapeake Bay and the region's streams, creeks, and rivers. TMDL was promoted by insufficient progress and continued poor water quality in the Chesapeake Bay and its tidal tributaries. It is required under the federal Clean Water Act and responds to consent decrees in Virginia and the District of Columbia from the late 1990s. Pollution limits are divided by jurisdiction and major river basin based on state-of-the-art modeling tools, extensive monitoring data, peer-revised science and close interaction with jurisdiction partners. The TMDL is designed to ensure that all pollution control measures needed to fully restore the Chesapeake Bay and its tidal rivers are in place by 2025, with practices in place by 2017 to meet 60 percent of the overall nitrogen, phosphorus, and sediment reductions.

This information came from an EPA Factsheet on TMDL in the Chesapeake Bay.

(http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/BayTMDLFactSheet8_26_13.pdf)

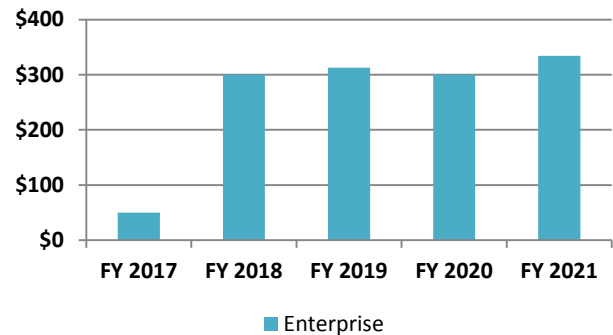


Sumner Lake Pond

THE FIVE-YEAR PLAN (FY 2017 – FY 2021)

The FY 2017 Adopted Five-Year Capital Improvement Program includes a \$1,297,000 Transfer from Enterprise Funds (Stormwater Fund).

FY 2017 funding includes a \$50,000 Transfer from the Stormwater Fund. This is a smaller amount than shown in other years because the operating budget includes a \$250,000 study of best management practices to aid in determining future capital needs.



(Dollars in Thousands)

FY 2017 CAPITAL PROJECTS

Tudor Oaks SWM Pond (D-010) calls for the acquisition and expansion of a private stormwater management pond to make it a regional facility and aid the City in meeting the nutrient reductions necessary as part of TMDL. Funding in FY 2017 is for planning purposes with construction anticipated in FY 2018.

While there is no additional funding in the CIP, work on the Prince William Hospital Regional SWM Pond (D-013) continues. This project is estimated to be completed in November 2017.

Work will also continue on School Street Drainage Improvements (D-025). This project calls for the installation of drain pipe to prevent flooding by off-site stormwater flows and is estimated to be completed in FY 2018.

FY 2017 MAINTENANCE CAPITAL PROJECTS

There are no maintenance capital projects in the Stormwater Program.

NEW CAPITAL PROJECTS

There are no new projects in the Stormwater Program.

SUMMARY OF STORMWATER CAPITAL PROJECT

(\$ in Thousands)

Cost Estimates:	Prior Years	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Future	Total Project	5-Year CIP
Planning	574	50	-	45	10	-	230	909	105
Land	5	-	-	-	-	-	50	55	-
Construction	4,604	-	300	268	290	334	2,128	7,924	1,192
Total Cost	5,183	50	300	313	300	334	2,408	8,888	1,297

Funding Sources:

General Fund	172	-	-	-	-	-	-	172	-
Enterprise Funds	162	50	300	313	300	334	2,408	3,867	1,297
School Fund	-	-	-	-	-	-	-	-	-
Bonds	2,897	-	-	-	-	-	-	2,897	-
Other Government	-	-	-	-	-	-	-	-	-
State	1,741	-	-	-	-	-	-	1,741	-
Federal	-	-	-	-	-	-	-	-	-
Gas Taxes	-	-	-	-	-	-	-	-	-
Proffers	-	-	-	-	-	-	-	-	-
Stormwater Escrows	166	-	-	-	-	-	-	166	-
NVTA	-	-	-	-	-	-	-	-	-
Other	45	-	-	-	-	-	-	45	-
Total Funding	5,183	50	300	313	300	334	2,408	8,888	1,297

Operating Impacts:

Revenue Offset	-	-	-	-	-	-	-	-	-
Personnel	-	-	-	-	-	-	-	-	-
Facility (Costs) Savings	-	-	-	-	-	-	-	-	-
Program (Costs) Saving	-	-	-	-	-	-	-	-	-
Debt Service	-	-	-	-	-	-	-	-	-
Net Revenue	-	-	-	-	-	-	-	-	-

Program Highlights

The FY 2017 Adopted Five-Year CIP includes \$1,297,000 for the Stormwater Program, which reflects a decrease of \$5,389,000 or 81%. This decrease is due to staff pushing projects into Future Years until after the completion of the best management practices study (FY 2017 operating budget) so as to determine the priority and need of projects in the Stormwater Program.

STORMWATER CAPITAL PROJECT LISTING

(\$ in Thousands)

Project Name	Prior Years	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Future	Total Project	5-Year CIP
Sills Pond	-	-	-	-	-	-	395	395	-
Tudor Oaks SWM Pond	-	50	300	-	-	-	-	350	350
Peabody Street / Early S	-	-	-	-	-	-	403	403	-
Prince William Hospital	5,031	-	-	-	-	-	-	5,031	-
Cockrell Branch SWM P	-	-	-	-	100	334	-	434	434
Jackson Avenue Draina	-	-	-	313	200	-	-	513	513
Hazel Drive Channel Imp	-	-	-	-	-	-	330	330	-
School Street Drainage I	152	-	-	-	-	-	-	152	-
Winter's Branch Stream	-	-	-	-	-	-	230	230	-
Flat Branch Stream Rest	-	-	-	-	-	-	500	500	-
Sumner Lake Stream Re	-	-	-	-	-	-	550	550	-
Total	5,183	50	300	313	300	334	2,408	8,888	1,297

D-010 Tudor Oaks SWM Pond

Year Introduced: 2002
Change: Moved From Future
Associated Proj: N/A
Program Area: Stormwater
Managing Dept: Public Works
Manager: P. Moore
Plan Conformance:
 Comprehensive Plan 7.7

Est. Start: 7/1/2016
Est. Complete: 6/30/2018



Description:

Acquire and expand a private stormwater management pond to make it a regional facility. Land acquisition would be donated by HOA. This project will assist the City in meeting the nutrient reductions necessary as required by the State and EPA as part of Total Maximum Daily Load (TMDL) for the Chesapeake Bay.

PROJECT-TO-DATE	
<i>Account #</i>	CP5163
Budget:	\$ -
Expend. / PO:	\$ -
Balance:	\$ -

Cost Estimate: (\$ in 1,000s)	Prior Years	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Future	Total Project
Planning	-	50		-	-	-	-	
Land	-	-	-	-	-	-	-	-
Construction	-	-	300	-	-	-	-	300
Total Cost	-	50	300	-	-	-	-	350

Funding Sources: (\$ in 1,000s)								
General Fund	-	-	-	-	-	-	-	-
Enterprise Funds	-	50	300	-	-	-	-	350
School Fund	-	-	-	-	-	-	-	-
Bonds	-	-	-	-	-	-	-	-
Other Government	-	-	-	-	-	-	-	-
State	-	-	-	-	-	-	-	-
Federal	-	-	-	-	-	-	-	-
Gas Taxes	-	-	-	-	-	-	-	-
Proffers	-	-	-	-	-	-	-	-
Stormwater Escrows	-	-	-	-	-	-	-	-
NVTA	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-
Total Funding	-	50	300	-	-	-	-	350

Operating Impacts: (\$ in 1,000s)								
Revenue Offset	-	-	-	-	-	-	-	-
Personnel	-	-	-	-	-	-	-	-
Facility (Costs) Savings	-	-	-	-	-	-	-	-
Program (Costs) Savings	-	-	-	-	-	-	-	-
Debt Service	-	-	-	-	-	-	-	-
Net Revenue	-	-	-	-	-	-	-	-

D-013 Prince William Hospital Regional SWM Pond

Year Introduced: 2002
Change: No change
Associated Proj: N/A
Program Area: Stormwater
Managing Dept: Public Works
Manager: P. Moore
Plan Conformance:
 Comprehensive Plan 7.7

Est. Start: 3/1/2013
Est. Complete: 11/30/2017



Description:

Construct a 7-acre pond to treat a 315-acre drainage area. VA DEQ Stormwater Local Assistance Funding was secured in FY14 for this project. This project will assist the City in meeting the nutrient reductions necessary as required by the State and EPA as part of Total Maximum Daily Load (TMDL) for the Chesapeake Bay.

PROJECT-TO-DATE	
<i>Account #</i>	<i>CP2617</i>
Budget:	\$ 5,031,246
Expend. / PO:	\$ 4,993,348
Balance:	\$ 37,898

Cost Estimate: (\$ in 1,000s)	Prior Years	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Future	Total Project
Planning	574	-	-	-	-	-	-	574
Land	-	-	-	-	-	-	-	-
Construction	4,457	-	-	-	-	-	-	4,457
Total Cost	5,031	-	-	-	-	-	-	5,031

Funding Sources: (\$ in 1,000s)								
General Fund	120	-	-	-	-	-	-	120
Enterprise Funds	162	-	-	-	-	-	-	162
School Fund	-	-	-	-	-	-	-	-
Bonds	2,897	-	-	-	-	-	-	2,897
Other Government	-	-	-	-	-	-	-	-
State	1,741	-	-	-	-	-	-	1,741
Federal	-	-	-	-	-	-	-	-
Gas Taxes	-	-	-	-	-	-	-	-
Proffers	-	-	-	-	-	-	-	-
Stormwater Escrows	66	-	-	-	-	-	-	66
NVTA	-	-	-	-	-	-	-	-
Other	45	-	-	-	-	-	-	45
Total Funding	5,031	-	-	-	-	-	-	5,031

Operating Impacts: (\$ in 1,000s)								
Revenue Offset	-	-	-	-	-	-	-	-
Personnel	-	-	-	-	-	-	-	-
Facility (Costs) Savings	-	-	-	-	-	-	-	-
Program (Costs) Savings	-	-	-	-	-	-	-	-
Debt Service	-	-	-	-	-	-	-	-
Net Revenue	-	-	-	-	-	-	-	-

D-018 Cockrell Branch SWM Pond Restoration / Dredging

Year Introduced: 2008
Change: No change
Associated Proj: N/A
Program Area: Stormwater
Managing Dept: Public Works
Manager: P. Moore
Plan Conformance:
 Comprehensive Plan 7.7

Est. Start: 7/1/2019
Est. Complete: 6/30/2021



Description:

Restore and dredge the Cockrell Branch Storm Water Management Pond. This will restore capacity and functionality to the pond and improve aesthetics. This project maybe eligible for Total Maximum Daily Load (TMDL) credit.

PROJECT-TO-DATE	
Account #	N/A
Budget:	\$ -
Expend. / PO:	\$ -
Balance:	\$ -

Cost Estimate: (\$ in 1,000s)	Prior Years	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Future	Total Project
Planning	-	-	-	-	10	-	-	10
Land	-	-	-	-	-	-	-	-
Construction	-	-	-	-	90	334	-	424
Total Cost	-	-	-	-	100	334	-	434

Funding Sources: (\$ in 1,000s)								
General Fund	-	-	-	-	-	-	-	-
Enterprise Funds	-	-	-	-	100	334	-	434
School Fund	-	-	-	-	-	-	-	-
Bonds	-	-	-	-	-	-	-	-
Other Government	-	-	-	-	-	-	-	-
State	-	-	-	-	-	-	-	-
Federal	-	-	-	-	-	-	-	-
Gas Taxes	-	-	-	-	-	-	-	-
Proffers	-	-	-	-	-	-	-	-
Stormwater Escrows	-	-	-	-	-	-	-	-
NVTA	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-
Total Funding	-	-	-	-	100	334	-	434

Operating Impacts: (\$ in 1,000s)								
Revenue Offset	-	-	-	-	-	-	-	-
Personnel	-	-	-	-	-	-	-	-
Facility (Costs) Savings	-	-	-	-	-	-	-	-
Program (Costs) Savings	-	-	-	-	-	-	-	-
Debt Service	-	-	-	-	-	-	-	-
Net Revenue	-	-	-	-	-	-	-	-

D-019 Jackson Avenue Drainage Improvements

Year Introduced: 2013
Change: Funding to Later Year
Associated Proj: N/A
Program Area: Stormwater
Managing Dept: Public Works
Manager: P. Moore
Plan Conformance:
 Comprehensive Plan 7.7

Est. Start: 7/1/2018
Est. Complete: 6/30/2020



Description:

Replace existing underground storm sewer system with a larger pipe system. This includes replacing sidewalk, curb and gutter, structures, and pavement. This should address problems with flooding of yards upstream.

PROJECT-TO-DATE	
Account #	N/A
Budget:	\$ -
Expend. / PO:	\$ -
Balance:	\$ -

Cost Estimate: (\$ in 1,000s)	Prior Years	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Future	Total Project
Planning	-	-	-	45	-	-	-	45
Land	-	-	-	-	-	-	-	-
Construction	-	-	-	268	200	-	-	468
Total Cost	-	-	-	313	200	-	-	513

Funding Sources: (\$ in 1,000s)	Prior Years	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Future	Total Project
General Fund	-	-	-	-	-	-	-	-
Enterprise Funds	-	-	-	313	200	-	-	513
School Fund	-	-	-	-	-	-	-	-
Bonds	-	-	-	-	-	-	-	-
Other Government	-	-	-	-	-	-	-	-
State	-	-	-	-	-	-	-	-
Federal	-	-	-	-	-	-	-	-
Gas Taxes	-	-	-	-	-	-	-	-
Proffers	-	-	-	-	-	-	-	-
Stormwater Escrows	-	-	-	-	-	-	-	-
NVTA	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-
Total Funding	-	-	-	313	200	-	-	513

Operating Impacts: (\$ in 1,000s)	Prior Years	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Future	Total Project
Revenue Offset	-	-	-	-	-	-	-	-
Personnel	-	-	-	-	-	-	-	-
Facility (Costs) Savings	-	-	-	-	-	-	-	-
Program (Costs) Savings	-	-	-	-	-	-	-	-
Debt Service	-	-	-	-	-	-	-	-
Net Revenue	-	-	-	-	-	-	-	-

D-025 School Street Drainage Improvements

Year Introduced: 2014
Change: No change
Associated Proj: T019;E014;S017;W063
Program Area: Stormwater
Managing Dept: Public Works
Manager: P. Moore
Plan Conformance:
 Comprehensive Plan 7.7

Est. Start: 9/1/2014
Est. Complete: 6/30/2018



Description:

Install storm drain pipe to prevent existing homes from being flooded by off-site stormwater flows. This will improve the storm drainage to the existing ditch, which receives drainage from Prince William St/Jefferson Ave area. It will reduce localized residential flooding as well. This project will be bid with the Prince William Street Project (T-19)

PROJECT-TO-DATE	
<i>Account #</i>	<i>CP5135</i>
Budget:	\$ 152,000
Expend. / PO:	\$ 1,068
Balance:	\$ 150,932

Cost Estimate: (\$ in 1,000s)	Prior Years	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Future	Total Project
Planning	-	-	-	-	-	-	-	-
Land	5	-	-	-	-	-	-	5
Construction	147	-	-	-	-	-	-	147
Total Cost	152	-	-	-	-	-	-	152

Funding Sources: (\$ in 1,000s)								
General Fund	52	-	-	-	-	-	-	52
Enterprise Funds	-	-	-	-	-	-	-	-
School Fund	-	-	-	-	-	-	-	-
Bonds	-	-	-	-	-	-	-	-
Other Government	-	-	-	-	-	-	-	-
State	-	-	-	-	-	-	-	-
Federal	-	-	-	-	-	-	-	-
Gas Taxes	-	-	-	-	-	-	-	-
Proffers	-	-	-	-	-	-	-	-
Stormwater Escrows	100	-	-	-	-	-	-	100
NVTA	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-
Total Funding	152	-	-	-	-	-	-	152

Operating Impacts: (\$ in 1,000s)								
Revenue Offset	-	-	-	-	-	-	-	-
Personnel	-	-	-	-	-	-	-	-
Facility (Costs) Savings	-	-	-	-	-	-	-	-
Program (Costs) Savings	-	-	-	-	-	-	-	-
Debt Service	-	-	-	-	-	-	-	-
Net Revenue	-	-	-	-	-	-	-	-

STORMWATER FUTURE YEARS PROJECTS SUMMARY

(\$ in Thousands)

Project #	Project Name and Description	COST	SOURCE
D-009	Sills Pond Retrofit and expand an existing stormwater management pond. This will assist the City in meeting the nutrient reductions necessary as required by the State and EPA as part of the Total Maximum Daily Load (TMDL).	\$ 395	Stormwater Fund
D-011	Peabody Street / Early Street Drainage Replace 2,000 feet of deteriorating 27"-30" storm sewer pipe. The existing storm sewer pipe is causing yards to flood.	\$ 403	Stormwater Fund
D-021	Hazel Drive Channel Improvements Stabilize the stream bank to and protect the stream from further erosion. Approximately 950 feet of stream bank to be affected. This will armor the eroded ditch/channel along Hazel Drive. Project may be eligible for Total Maximum Daily Load (TMDL) credit.	\$ 330	Stormwater Fund
D-026	Winter's Branch Stream Restoration Repair the eroded stream banks along Winter's Branch from Bartow Street to Wellington Road. Stabilize and protect the stream from further erosion. This project may be eligible for Total Maximum Daily Load (TMDL) credit.	\$ 230	Stormwater Fund
D-027	Flat Branch Stream Restoration Repair the eroded stream banks along Flat Branch from upstream of the New Britain storm water management facility to Mathis Avenue and Portner Avenue (2 tributaries). Stabilize and protect the stream from further erosion. This project may be eligible for Total Maximum Daily Load (TMDL) credit.	\$ 500	Stormwater Fund
D-028	Sumner Lake Stream Restoration Repair the eroded stream banks from just upstream of Sumner Lake to Grant Avenue. Stabilize and protect the stream from further erosion. This project may be eligible for Total Maximum Daily Load (TMDL) credit.	\$ 550	Stormwater Fund

This page has intentionally been left blank.

